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**From:** TU, LYNDSEY [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1BBD1651E4434BD78233A6BC426D56F1-TU, LYNDSEY]  
**Sent:** 4/3/2018 11:09:55 PM  
**To:** Grange, Gabrielle Fenix [Gabrielle.Grange@doh.hawaii.gov]  
**CC:** Ichinotsubo, Lene K [lene.ichinotsubo@doh.hawaii.gov]  
**Subject:** RE: Follow up email to Tracy

Fenix,

Comments on your comments below the break, and my updates to the email in green below. Give me a call tomorrow if you need to discuss further, I'd like to have initial follow up with Tracy tomorrow and we can always add more topics to the agenda for discussion once we see the draft. If you are okay with this version, let me know and I will transmit.

Thanks,

-Lyndsey

Hi Tracy,

Thank you for the call earlier this week, I anticipate that we will be able to achieve our intended goals with **one meeting on April 26<sup>th</sup>**. Per our discussion, the Regulatory Agencies require additional information to support an understanding of the basis for the geologic model in Navy's CSM prior to the release of the technical memo. The specific information used in the base geologic model (i.e. dip angles, apertures, lava flow directions, etc.) should be made available to the Regulatory Agencies by April 16<sup>th</sup>. We request this data be made available to us in easily accessible electronic form and plan to share it with external subject matter experts upon being made available us. Our experts feel that this information is vital to adequately and objectively judge the Navy's models. We are available for discussion should you feel that April 16<sup>th</sup> is too soon, but we feel strongly that this data is a priority.

In addition, I discussed providing some thoughts regarding the EV Tech Memo as it relates to the TUA decision. Overall, the interim environmental information is intended to support a tank upgrade decision, and we believe the environmental information to date should be used to provide answers to questions such as the ones below, on a local and regional scale under normal conditions.

- What happens to small (below detection limit) Chronic releases, and where do they go in the environment?
- What happened to the Tank 5 release?
- If another release of a similar magnitude was to occur from a different tank, what type of environmental response could the Navy have given the information available and monitoring well network?
- What about a release of hundreds of thousands of gallons?
- Can the Navy predict concentrations at Navy wells and at Red Hill shaft in a release scenario under normal pumping conditions?

I understand that the Navy is working to include additional release scenarios in the tech memo, we look forward to discussing those scenarios as well as the questions we've raised in a future call.

In preparation for our upcoming meetings regarding components of the Navy's CSM, we wanted to make clear our priorities for discussion.

Using the 'modules' laid out by the CSM table of contents shared at a previous Technical Working Group meeting, our priorities for discussion, and follow up questions are:

Module C- LNAPL Model

- Provide a detailed description of the changes to their LNAPL conceptual model given recent discussions
- Discussion of the release scenarios
- Continued discussion about groundwater chemistry and interpretations

Module F- Dissolved Phase Transport

- Priority discussion topic, as it applies to the questions above.

Module D- Vadose Zone /Geologic Model

- What progress if any has been made regarding previous suggestion to examine changes in features across barrel logs?

Please feel free to reach out if there is any need for further clarification. Otherwise we look forward to having the opportunity to comment on an agenda as soon as one is available.

Thanks,

Lyndsey Tu  
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Land Division, U.S. EPA Pacific Southwest  
[Tu.Lyndsey@epa.gov](mailto:Tu.Lyndsey@epa.gov) | 415-972-3269

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Hi Tracy,

Thank you for the call today, I anticipate that we will be able to achieve our intended goals with one meeting in late April/ Early May. ~~I'm concerned this is too close to their release date for the TM and would like to get our bottom line concerns to them about the water chemistry interpretation sooner, and ideally, talk with Ileana, even if it is a short focused call without slides. That flows into the fundamental issue with the LNAPL model. If that's just not possible, summarizing our internal team discussions that there are other equally or more plausible interpretations of the data indicating gw impacts have already happened, and transport appears to be occurring at greater distances than can be explained by their box model.~~

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In addition, I discussed providing some thoughts regarding the EV Tech Memo as it relates to the TUA decision. Overall, the interim environmental information is intended to support a tank upgrade decision, and we believe the environmental information to date should be used to provide answers to questions such as the ones below, on a local and regional scale under normal conditions.

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#### Module C- LNAPL Model

Lyndsey, resolving the 5 points laid out by G.D, about water chemistry interpretation is key to moving forward on the LNAPL model Has Gary made these points verbally or in writing to the Navy?

- Provide a detailed description of the changes to their LNAPL conceptual model given recent discussions
- Discussion of the release scenarios

#### Module F- Dissolved Phase Transport

-Priority discussion topic, as it applies to the questions above. This is important, but requires agreement and discussion on the GW flow model, another area where we may be nearing an impasse.

#### Module D- Vadose Zone /Geologic Model

- What progress if any has been made regarding previous suggestion to examine changes in features across barrel logs? Bob and Don want these data to work themselves - how do we get that? We can ask about this on the call about data, we should first clarify what exactly Bob and Don want, as we actually have received the barrel logs previously.

Please feel free to reach out if there is any need for further clarification. Otherwise we look forward to having the opportunity to comment on an agenda as soon as one is available.

Thanks,

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